

12100917

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**Premarket Notification  
510(k) Summary  
FIDIST™ VASCULITIS Assay kit**

**Assigned 510(k) Number: k100917**

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**2) Device Name**

**Trade/Proprietary Name :** FIDIST™ VASCULITIS Assay kit

**Classification Names:** Test system, Antineutrophil Cytoplasmic Antibodies (ANCA)  
Devices, Measure, Antibodies to Glomerular Basement  
Membrane (GBM)

**Common/Usual Name :** **MX007 – MX507 - FIDIST™ VASCULITIS:** Detection  
test for autoantibodies directed against Myeloperoxidase  
(MPO), Serine Proteinase 3 (PR3) and Glomerular  
Basement Membrane (GBM) in human serum

S.A au Capital de 2 755.46 Euros  
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*Trade/Proprietary Name :* **FIDIST™ Analyzer**

*Classification Name:* Instrumentation for Chemical Multiplex Systems

*Trade/Proprietary Name :* **CARIST™ System**

*Classification Name:* Device, Microtiter diluting/Dispensing

### 3) Legally marketed equivalent device

| 510K Number | Device Classification Name | Manufacturer Name                   |
|-------------|----------------------------|-------------------------------------|
| K070458     | <b>FIDIST™ VASCULITIS</b>  | Biomedical Diagnostics<br>S.A.(bmd) |

### 4) Device description

**FIDIST™ VASCULITIS\*** kit is a multiplex flow immunoassay, which allows simultaneous identification and detection of several antibodies.

**FIDIST™ VASCULITIS\*** is based on the use of distinct uniform size color-coded microsphere sets and a benchtop flow cytometer interfaced to digital signal processing hardware and software. A red diode laser beam in the flow cytometer recognizes each set of microspheres on the basis of its unique fluorescence intensity (red and infrared) thus identifying which parameter is being tested. At the same time, a green laser beam illuminates the external second molecule fluorescence to quantify the reaction related to the specific antigen.

Three different fluorescently “colored” sets of microspheres are coated with antigens associated with various primary systemic small blood vessel vasculitides and glomerular basement membrane disease (MPO, PR3 and GBM). An additional microsphere (Internal Bead standard) set is coated with anti-IgG to ensure that false negative results due to operational error are detected.

The four different sets of microspheres are mixed together. The mixture is lyophilized and constitutes the final microspheres reagent.

The test is performed using a 96 wells microplate with a filtering membrane at the bottom of the wells.

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- ⇒ In the first step, the sample is distributed in each well containing the reconstituted microspheres mixture, allowing any anti-MPO, anti-PR3 or anti-GBM antibodies present to bind to the immobilized antigens on the microspheres, as well as free IgG to bind to the anti-IgG microsphere.
- ⇒ After incubation, a wash step using a filtration process removes the unbound antibodies.
- ⇒ A phycoerythrin anti-human IgG conjugate is then added that binds to the previously bound antibodies.
- ⇒ A final wash step stops the reaction and eliminates the unbound conjugate.
- ⇒ The reaction is then measured directly by the flow cytometer, which distinguishes each set of microspheres by its fluorescence color while simultaneously measuring the average fluorescence emitted by the conjugate.
- ⇒ A calibration system allows the determination of the titer (AU/mL) of each sample by interpolation for each antigenic specificity.

### Kit components

|   | MX007     | MX507      |
|---|-----------|------------|
| 96 wells microplate with filtering membrane and lid.<br><b>MP</b>   | 1 plate   | 5 plates   |
| Vial (A) of color-coded microsphere set of 3 sensitized by MPO (purified from human blood), PR3 (purified from human leucocytes) and GBM (purified from bovine tissues).<br>Lyophilized (to be reconstituted with the buffer named D)<br><b>MICROSPHERES</b>                    | qs 6mL    | 5 x qs 6mL |
| Vial (B1) of sample dilution buffer (white vial)<br><u>Ready to use</u><br><b>DIL</b> <b>SPE</b>  | 2 x 115mL | 10 x 115mL |
| Vial of calibrator titred in arbitrary units for the specificities to be measured.<br><u>Ready to use</u><br><i>Each titer is printed on the vial label</i><br><b>CAL</b>   | 1 x 1.5mL | 5 x 1.5mL  |
| Vial of positive control concentrate. This control has a standard reactivity, which provides evidence of the proper reagents activity and proper assay performance.<br><u>To be diluted</u><br><i>Expected values are printed on the vial label.</i><br><b>CONTROL</b> <b>+</b> | 1 x 250µL | 5 x 250µL  |
| Vial of negative control concentrate<br><u>To be diluted</u><br><b>CONTROL</b> <b>-</b>   | 1 x 250µL | 5 x 250µL  |
| Vial of anti-human IgG coupled to phycoerythrin<br><u>Ready to use</u><br><b>CONJ</b> <b>IgG</b>  | 1 x 12mL  | 5 x 12mL   |
| Vial (C1) of washing buffer (black vial)<br><u>Ready to use</u><br><b>BUF</b> <b>WASH</b>   | 1 x 100mL | 5 x 100mL  |
| Vial (D) of reconstitution buffer for the microsphere set<br><u>Ready to use</u><br><b>BUF</b> <b>MICROSPHERES</b>  | 1 x 6mL   | 5 x 6mL    |

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## 5) Intended use

### ***FIDIS™ VASCULITIS Assay kit***

The **FIDIS™ VASCULITIS\*** kit is a semi-quantitative homogeneous fluorescent-based microparticle immunoassay using flow cytometry. The test system is used to simultaneously detect the presence of anti-neutrophil cytoplasmic antibodies (ANCA) directed against Myeloperoxidase (*MPO*), Serine Proteinase 3 (*PR3*) and antibodies directed against glomerular basement membrane (GBM) in human serum samples.

The results of the **FIDIS™ VASCULITIS\*** test are to be used in conjunction with the clinical findings and the other laboratory tests to aid in the diagnosis of various primary systemic small blood vessel vasculitides and glomerular basement membrane disease.

#### *Clinical utility:*

The detection of ANCA is associated with primary systemic small blood vessel vasculitides: Wegener's granulomatosis, Churg Strauss syndromes, microscopic periarteritis and idiopathic crescentic glomerulonephritis; and the detection of anti-GBM antibodies is associated with Goodpasture's syndrome.

**FIDIS™ VASCULITIS\*** kit uses serum only, and is to be run on the **FIDIS™** Instrument and **MLX-BOOSTER** Software.

**FIDIS™ VASCULITIS\*** kit may be used with the **CARIS™** system (diluting and dispensing device).

**This kit is for *In vitro* diagnostic use.**

\* Detection of the serologic markers for primary systemic small blood vessel vasculitides (ANCA) and for Goodpasture syndrome (GBM).

## 6) Technological characteristics

The following table summarizes similarities and differences between the modified FIDIST<sup>TM</sup> VASCULITIS and the predicate device FIDIST<sup>TM</sup> VASCULITIS (K070458).

### Comparison with the predicate

|   |           | Predicate Device<br>FIDIST <sup>TM</sup> VASCULITIS<br>K070458  | Modified Device<br>FIDIST <sup>TM</sup> VASCULITIS  |
|---|-----------|---|---|
| Intended use                                  |           | Individual determination in human serum, of IgG antibodies against:<br>MPO, PR3 and GBM   | Same  |
| Antigen                                       |           | <ul style="list-style-type: none"> <li>- MPO: purified antigen</li> <li>- PR3: purified antigen</li> <li>- GBM: purified antigen</li> </ul> | Same  |
| CUT-OFF                                       | Negative  | <20 AU/mL<br>for the 3 specificities  | Same  |
|   | Equivocal | 20-25 AU/mL<br>for the 3 specificities  | Same  |
|   | Positive  | >25 AU/mL<br>for the 3 specificities  | Same  |
| Beads   |           | Vial of color-coded microsphere set<br><u>ready to use</u> (6mL)  | Vial of color-coded microsphere set<br><u>Lyophilized</u><br>(Quantity sufficient to obtain 6mL after reconstitution) |
| Reconstitution buffer for the microsphere set |           | No  | Vial (D) of reconstitution buffer for the microsphere set<br>Ready to use (6mL)                                       |
| Sample dilution                               |           | Sample dilution buffer – (PBS-Tween)<br>ready to use  | Same  |
| Wash buffer                                   |           | Washing buffer – (PBS-Tween)<br>ready to use  | Same  |
| Internal standard beads                       |           | Yes   | Same  |
| Assay configuration                           |           | 1 "reagent-blank" well<br>1 "negative control" well<br>1 "positive control" well<br>2 "calibrator" wells                                    | Same  |
|   |           | Diluted sample wells  | Same  |
| Incubation time                               |           | 2 x 30min. RT   | Same  |
| Assay protocol                                |           | Final wash step   | Same  |
| Software                                      |           | MLX-Booster Version 2.2   | Same  |
| Assay technology                              |           | Flow cytometric   | Same  |
| Number of reading microspheres per parameter  |           | 200   | 100   |
| Reading time                                  |           | 60 seconds  | 90 seconds  |
| Microplate sealing films                      |           | 6   | No  |
| Sample delivery                               |           | Manual pipetting  | Same  |
| Automated sample delivery (option)            |           | CARIS <sup>TM</sup> (pipettor)  | Same  |

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## 7) Performance Characteristics

### 7.1. Precision study – Using Manual Pipetting

Precision of the assay was assessed using 6 samples for each of the three parameters (MPO, PR3, GBM). Precision was determined by calculating the within-run (intra-assay) and the between-run (inter-assay).

- For within-run: 10 tests in a same run.
- For between-run: 5 runs, 3 tests per run

**Table 1: Summary of FIDIS<sup>TM</sup> VASCULITIS precision results using Manual Pipetting**

| Sample range    | MPO, PR3 and GBM parameters |             |             |             |
|-----------------|-----------------------------|-------------|-------------|-------------|
|                 | Within-run                  |             | Between-run |             |
|                 | Minimal %CV                 | Maximal %CV | Minimal %CV | Maximal %CV |
| ≤ 25 AU/mL      | 3%                          | 6%          | 4%          | 11%         |
| 26 to 400 AU/mL | 2%                          | 9%          | 2%          | 12%         |

### 7.2. Comparison study with predicate – Using Manual Pipetting

bmd has compared the results obtained with **modified FIDIS<sup>TM</sup> VASCULITIS** versus the results obtained with **predicate FIDIS<sup>TM</sup> VASCULITIS K070458**.

The study was performed on 280 samples characterized with the predicate test and the result repartition is described below:

- **197 samples were positive** for one or more parameters ANCA and/or GBM. Of the 197 samples: 192 are positive for one parameter, 3 are positive for two parameters and 2 are positive for all three parameters.
- **83 negative samples.**

a. First set of measures based on included the equivocal results with the test negative results.

Table 2a: MPO performances

| MPO                              |          | PREDICATE FIDIS™<br>VASCULITIS<br>K070458 |          |       |
|----------------------------------|----------|---|----------|-------|
|                                  |          | Positive                                  | Negative | Total |
| MODIFIED<br>FIDIS™<br>VASCULITIS | Positive | 95  | 1        | 96    |
|                                  | Negative | 0   | 184      | 184   |
|                                  | Total    | 95  | 185      | 280   |

There were 15 equivocal results with the assay. For purposes of calculation, these results were considered to be negative.

- Positive percent agreement: 100% (95/95)
- Negative percent agreement: 99.4% (184/185)
- Overall agreement: 99.6% (279/280)

Table 3a: PR3 performances

| PR3                              |          | PREDICATE FIDIS™<br>VASCULITIS<br>K070458 |          |       |
|----------------------------------|----------|---|----------|-------|
|                                  |          | Positive                                  | Negative | Total |
| MODIFIED<br>FIDIS™<br>VASCULITIS | Positive | 89  | 0        | 89    |
|                                  | Negative | 1   | 190      | 191   |
|                                  | Total    | 90  | 190      | 280   |

There were 3 equivocal result with the assay. For purposes of calculation, these results were considered to be negative.

- Positive percent agreement: 98.9% (89/90)
- Negative percent agreement: 100% (190/190)
- Overall agreement: 99.6% (279/280)

Table 4a: GBM performances

| GBM                              |          | PREDICATE FIDIS™<br>VASCULITIS<br>K070458 |          |       |
|----------------------------------|----------|---|----------|-------|
|                                  |          | Positive                                  | Negative | Total |
| MODIFIED<br>FIDIS™<br>VASCULITIS | Positive | 18  | 0        | 18    |
|                                  | Negative | 0   | 262      | 262   |
|                                  | Total    | 18  | 262      | 280   |

There were 0 equivocal results with the assay.

- Positive percent agreement: 100% (18/18)
- Negative percent agreement: 100% (262/262)
- Overall agreement: 100% (280/280)

b. Second set of measures based on included the equivocal results with the test positive results.

#### ⇒ MPO results

**Table 2b: MPO performance**

| MPO                              |          | PREDICATE FIDIS™<br>VASCULITIS<br>K070458 |          |       |
|----------------------------------|----------|---|----------|-------|
|                                  |          | Positive                                  | Negative | Total |
| MODIFIED<br>FIDIS™<br>VASCULITIS | Positive | 103                                       | 2        | 105   |
|                                  | Negative | 5   | 170      | 175   |
|                                  | Total    | 108                                       | 172      | 280   |

There were 15 equivocal results with the assay. For purposes of calculation, these results were considered to be positive.

- Positive percent agreement: 95.4% (103/108)
- Negative percent agreement: 98.8% (170/172)
- Overall agreement: 97.5% (273/280)

#### ⇒ PR3 results

**Table 3b: PR3 performance**

| PR3                              |          | PREDICATE FIDIS™<br>VASCULITIS<br>K070458 |          |       |
|----------------------------------|----------|---|----------|-------|
|                                  |          | Positive                                  | Negative | Total |
| MODIFIED<br>FIDIS™<br>VASCULITIS | Positive | 90  | 2        | 92    |
|                                  | Negative | 0   | 188      | 188   |
|                                  | Total    | 90  | 190      | 280   |

There were 3 equivocal results with the assay. For purposes of calculation, these results were considered to be positive.

- Positive percent agreement: 100% (90/90)
- Negative percent agreement: 98.9% (188/190)
- Overall agreement: 99.3% (278/280)

#### ⇒ GBM results

**Table 4b: GBM performance**

| GBM                              |          | PREDICATE FIDIS™<br>VASCULITIS<br>K070458 |          |       |
|----------------------------------|----------|---|----------|-------|
|                                  |          | Positive                                  | Negative | Total |
| MODIFIED<br>FIDIS™<br>VASCULITIS | Positive | 18  | 0        | 18    |
|                                  | Negative | 0   | 262      | 262   |
|                                  | Total    | 18  | 262      | 280   |

There were 0 equivocal results with the assay.

- Positive percent agreement: 100% (18/18)
- Negative percent agreement: 100% (262/262)
- Overall agreement: 100% (280/280)



Table 5: Summary of performance agreement results

| Antigenic Specificity                                      |   | MPO     | PR3     | GBM     |
|--|---|---------|---------|---------|
| Sample number  |   | 280     | 280     | 280     |
| Positive percent agreement                                 | equivocal results included with the test negative results | 100%    | 98.9%   | 100%    |
|  | equivocal results included with the test positive results | 95.4%   | 100%    | 100%    |
| Negative percent agreement                                 | equivocal results included with the test negative results | 99.4%   | 100%    | 100%    |
|  | equivocal results included with the test positive results | 98.8%   | 98.9%   | 100%    |
| Overall agreement  | equivocal results included with the test negative results | 99.6%   | 99.6%   | 100%    |
|  | equivocal results included with the test positive results | 97.5%   | 99.3%   | 100%    |
| 95%CI<br>(EP12-A<br>Chap 9.2.2.)                           | equivocal results included with the test negative results | 93-100% | 94-100% | N/A     |
|  | equivocal results included with the test positive results | 91-100% | 93-100% | N/A     |
| 95%CI<br>For positive agreement<br>(EP12-A<br>Chap 9.1.1.) | equivocal results included with the test negative results | N/A     | N/A     | 82-100% |
|  | equivocal results included with the test positive results | N/A     | N/A     | 82-100% |
| 95%CI<br>For negative agreement<br>(EP12-A<br>Chap 9.1.1.) | equivocal results included with the test negative results | N/A     | N/A     | 99-100% |
|  | equivocal results included with the test positive results | N/A     | N/A     | 99-100% |

All of results show that **FIDIS™ VASCULITIS** system can be considered substantially equivalent to the predicate **K070458 FIDIS™ VASCULITIS** system.

### 7.3. Performance data for modified FIDIS<sup>TM</sup> VASCULITIS with CARIS<sup>TM</sup> (diluting/ dispensing Device)

#### a. Precision study

Internal study was conducted to evaluate the reproducibility of the use of CARIS<sup>TM</sup> with modified FIDIS<sup>TM</sup> VASCULITIS.

Precision of the assay was assessed using 6 samples for each of the three parameters (MPO, PR3, GBM). Precision was determined by calculating the within-run (intra-assay) and the between-run (inter-assay).

- For within-run: 10 tests in a same run.
- For between-run: 5 runs, 3 tests per run.

Table 6: Summary of CARIS<sup>TM</sup> precision results

| Sample range    | MPO, PR3 and GBM parameters |             |             |             |
|-----------------|-----------------------------|-------------|-------------|-------------|
|                 | Within-run                  |             | Between-run |             |
|                 | Minimal %CV                 | Maximal %CV | Minimal %CV | Maximal %CV |
| ≤ 25 AU/mL      | 5%                          | 8%          | 4%          | 16%         |
| 26 to 400 AU/mL | 5%                          | 12%         | 2%          | 12%         |

#### b. Comparison studies (manual versus automated assay preparation steps)

bmd has compared the results obtained with modified FIDIS<sup>TM</sup> VASCULITIS for manual or automated (with CARIS<sup>TM</sup>).assay preparation steps.

The study was performed on 106 samples characterized with the modified FIDIS<sup>TM</sup> VASCULITIS with manual assay preparation step.

The result repartition is described below:

- 98 **positive samples** for one or more parameters ANCA and/or GBM.  
Of the 91 samples, 94 are positive for one parameter, 2 are positive for two parameters and 2 are positive for all three parameters.
- 8 **negative samples**

a. First set of measures based on included the equivocal results with the test negative results.

⇒ Table 7a: MPO performances

| MPO  |          | MODIFIED FIDIST™<br>VASCULITIS<br>Manual |          |       |
|--|----------|--|----------|-------|
|  |          | Positive                                 | Negative | Total |
| MODIFIED<br>FIDIST™<br>VASCULITIS<br>With<br>CARIST™ | Positive | 40                                       | 0        | 40    |
|  | Negative | 2  | 64       | 66    |
|  | Total    | 42                                       | 64       | 106   |

There were 2 equivocal results with the assay. For purposes of calculation, these results were considered to be negative.

- Positive percent agreement: 95.2% (40/42)
- Negative percent agreement: 100% (64/64)
- Overall agreement: 98.1% (104/106)

⇒ Table 8a: PR3 performances

| PR3  |          | MODIFIED FIDIST™<br>VASCULITIS<br>Manual |          |       |
|--|----------|--|----------|-------|
|  |          | Positive                                 | Negative | Total |
| MODIFIED<br>FIDIST™<br>VASCULITIS<br>With<br>CARIST™ | Positive | 40                                       | 2        | 42    |
|  | Negative | 1  | 63       | 64    |
|  | Total    | 41                                       | 65       | 106   |

There were 4 equivocal results with the assay. For purposes of calculation, these results were considered to be negative.

- Positive percent agreement: 97.6% (40/41)
- Negative percent agreement: 96.9% (63/65)
- Overall agreement: 97.2% (103/106)

⇒ Table 9a: GBM performances

| GBM  |          | MODIFIED FIDIST™<br>VASCULITIS<br>Manual |          |       |
|--|----------|--|----------|-------|
|  |          | Positive                                 | Negative | Total |
| MODIFIED<br>FIDIST™<br>VASCULITIS<br>With<br>CARIST™ | Positive | 24                                       | 0        | 24    |
|  | Negative | 0  | 82       | 82    |
|  | Total    | 24                                       | 82       | 106   |

There were 0 equivocal results with the assay.

- Positive percent agreement: 100% (24/24)
- Negative percent agreement: 100% (82/82)
- Overall agreement: 100% (106/106)

b. Second set of measures based on included the equivocal results with the test positive results.

#### ⇒ MPO results

**Table 7b: MPO performance**

| MPO  |          | MODIFIED FIDIST™<br>VASCULITIS<br>Manual |          |       |
|--|----------|--|----------|-------|
|  |          | Positive                                 | Negative | Total |
| MODIFIED<br>FIDIST™<br>VASCULITIS<br>With<br>CARIST™ | Positive | 42                                       | 0        | 42    |
|  | Negative | 0  | 64       | 64    |
|  | Total    | 42                                       | 64       | 106   |

There were 2 equivocal results with the assay. For purposes of calculation, these results were considered to be positive.

- Positive percent agreement: 100% (42/42)
- Negative percent agreement: 100% (64/64)
- Overall agreement: 106% (106/106)

#### ⇒ PR3 results

**Table 8b: PR3 performance**

| PR3  |          | MODIFIED FIDIST™<br>VASCULITIS<br>Manual |          |       |
|--|----------|--|----------|-------|
|  |          | Positive                                 | Negative | Total |
| MODIFIED<br>FIDIST™<br>VASCULITIS<br>With<br>CARIST™ | Positive | 44                                       | 0        | 44    |
|  | Negative | 0  | 62       | 62    |
|  | Total    | 44                                       | 62       | 106   |

There were 4 equivocal results with the assay. For purposes of calculation, these results were considered to be positive.

- Positive percent agreement: 100% (44/44)
- Negative percent agreement: 100% (62/62)
- Overall agreement: 100% (106/106)

#### ⇒ GBM results

**Table 9b: GBM performance**

| GBM  |          | MODIFIED FIDIST™<br>VASCULITIS<br>Manual |          |       |
|--|----------|--|----------|-------|
|  |          | Positive                                 | Negative | Total |
| MODIFIED<br>FIDIST™<br>VASCULITIS<br>With<br>CARIST™ | Positive | 24                                       | 0        | 24    |
|  | Negative | 0  | 82       | 82    |
|  | Total    | 24                                       | 82       | 106   |

There were 0 equivocal results with the assay.

- Positive percent agreement: 100% (24/24)
- Negative percent agreement: 100% (82/82)
- Overall agreement: 100% (106/106)

Table 10: Summary of performance agreements results obtained with CARIST™ versus manual

| Antigenic Specificity                                      |   | MPO     | PR3     | GBM     |
|--|---|---------|---------|---------|
| Sample number  |   | 106     | 106     | 106     |
| Positive percent agreement                                 | equivocal results included with the test negative results | 95.2%   | 97.6%   | 100%    |
|  | equivocal results included with the test positive results | 100%    | 100%    | 100%    |
| Negative percent agreement                                 | equivocal results included with the test negative results | 100%    | 96.9%   | 100%    |
|  | equivocal results included with the test positive results | 100%    | 100%    | 100%    |
| Overall agreement  | equivocal results included with the test negative results | 98.1%   | 97.2%   | 100%    |
|  | equivocal results included with the test positive results | 100%    | 100%    | 100%    |
| 95%CI<br>(EP12-A<br>Chap 9.2.2.)                           | equivocal results included with the test negative results | 87-100% | 86-100% | N/A     |
|  | equivocal results included with the test positive results | N/A     | N/A     | N/A     |
| 95%CI<br>For positive agreement<br>(EP12-A<br>Chap 9.1.1.) | equivocal results included with the test negative results | N/A     | N/A     | 86-100% |
|  | equivocal results included with the test positive results | 92-100% | 92-100% | 86-100% |
| 95%CI<br>For negative agreement<br>(EP12-A<br>Chap 9.1.1.) | equivocal results included with the test negative results | N/A     | N/A     | 99-100% |
|  | equivocal results included with the test positive results | 94-100% | 94-100% | 96-100% |

All of previous evaluations results indicate that manual and automated (with CARIST™) assay preparation steps are substantially equivalent.



## 8) Conclusions

=> In conclusion, all supporting data demonstrate that the **FIDIS™ VASCULITIS system** can be considered substantially equivalent to the predicate device.  
=> All comparative studies indicate that manual and automated (**with CARIS™**) assays provide results that are statistically comparable.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Food and Drug Administration  
10903 New Hampshire Avenue  
Silver Spring, MD 20993-0002

Biomedical Diagnostics (bmd) SA  
c/o Ms. Christelle Courivaud  
Regulatory Manager  
Actipole 25, 4-6 Bld de Beaubourg  
77435 Marne-La-Vallee Cedex 2  
France

NOV 03 2010

Re: k100917

Trade/Device Name: FIDIST<sup>TM</sup> VASCULITIS Assay Kit  
Regulation Number: 21CFR§866.5660  
Regulation Name: Multiple autoantibodies immunological test system  
Regulatory Class: Class II  
Product Code: MOB, MVJ  
Dated: October 6, 2010  
Received: October 7, 2010

Dear Ms. Courivaud:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

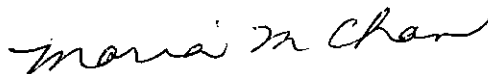
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21

CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Maria M. Chan, Ph.D.  
Director  
Division of Immunology and Hematology Devices  
Office of In Vitro Diagnostic Device Evaluation and  
Safety  
Center for Devices and Radiological Health

Enclosure



## Indication for Use

NOV 03 2010

510(k) Number (if known): k100917

Device Name: FIDIS™ VASCULITIS

### Indication For Use:

The FIDIS™ VASCULITIS\* kit is a semi-quantitative homogeneous fluorescent-based microparticle immunoassay using flow cytometry. The test system is used to simultaneously detect the presence of anti-neutrophil cytoplasmic antibodies (ANCA) directed against Myeloperoxidase (MPO), Serine Proteinase 3 (PR3) and antibodies directed against glomerular basement membrane (GBM) in human serum samples.

The results of the FIDIS™ VASCULITIS\* test are to be used in conjunction with the clinical findings and the other laboratory tests to aid in the diagnosis of various primary systemic small blood vessel vasculitides and glomerular basement membrane disease.

### Clinical utility:

The detection of ANCA is associated with primary systemic small blood vessel vasculitides: Wegener's granulomatosis, Churg Strauss syndromes, microscopic periarteritis and idiopathic crescentic glomerulonephritis; and the detection of anti-GBM antibodies is associated with Goodpasture's syndrome.

FIDIS™ VASCULITIS\* kit uses serum only, and is to be run on the FIDIS™ Instrument and MLX-BOOSTER Software.

FIDIS™ VASCULITIS\* kit may be used with the CARIS™ system (diluting and dispensing device).

**This kit is for *In vitro* Diagnostic Use.**

\* Detection of the serologic markers for primary systemic small blood vessel vasculitides (ANCA) and for Goodpasture syndrome (GBM).

Prescription Use   X    
(21 CFR Part 801 Subpart D)

And/Or

Over the Counter Use         
(21 CFR Part 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE; CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of In Vitro Diagnostic Device Evaluation and Safety (OIVD)

Maria M Chan  
Division Sign-Off  
Office of In Vitro Diagnostic Device  
Evaluation and Safety